Clean copy of pending claims

4-7 and 38-49

4. A compound of the formula:

$$R^{1}$$
 R^{2}
 R^{2}
 R^{4}
 R^{5}
 R^{5}
 R^{5}

wherein:

R¹ is OH, O(CH₂)₁₋₂OH, OCH₂CO₂H, CO₂H, O-Z-C(O)NH(CH₂)₁₋₆R¹⁷ or OCH₂-4-Phe-C(O)NH(CH₃)₁₋₆R¹⁷;

R² is H or lower alkyl;

R³ is H, alkyl, aryl, or arylalkyl;

R⁴ and R⁵ are each independently H, lower alkyl, or substituted lower alkyl where the substituents are 1-3 alkoxy, aryl, substituted aryl, carboalkoxy, carboxamido or di-loweralkylamido; or

 $R^4 \text{ and } R^5 \text{ taken together are -}(CH_2)_n\text{-}, -(CH_2)_2\text{-}O\text{-}(CH_2)_2\text{-}, -CH_2\text{-}O\text{-}(CH_2)_3\text{-}, -(CH_2)_2\text{-}NR^8\text{-}CH_2)_2\text{-}, \\ -CH_2\text{-}NR^8\text{-}(CH_2)_m\text{-}, -(CH_2)_2\text{CH}(NHR^8)(CH_2)_2\text{-}, -(CH_2)_2\text{-}S(O)_{0.2}\text{-}(CH_2)_2\text{-}, \text{ or } -CH_2\text{CH}(N\text{-}loweralkyl)(CH_2)_2\text{CHCH}_2\text{-}; \\ \\$

one of R^6 and R^7 is H and the other is H, OH, or $N(CH_2)_{1-6}R^{14}R^{15}$; or

 R^6 and R^7 taken together are R^2 , R^2 , or R^2 , with the proviso that when R^1 is -OH and R^2 is -H, R^6 and R^7 are not -H and -OH or when taken together are not ;

- R⁸ is H, COOR⁹, CONHR¹⁰, CSNHR¹¹, COR¹², SO₂R¹³, lower alkyl, aryl lower alkyl, heteroaryl, or heteroaryl lower alkyl, wherein aryl is optionally substituted with 1-3 substituents selected from lower alkyl, lower alkoxy, halo, CN, NH₂, COOH, CONH₂, carboalkoxy, and mono- or di-lower alkylamino and wherein heteroaryl is a mono- or bicyclic heteroaromatic ring system of 5 to 10 members including 1 to 3 heteroatoms selected from O, N, and S and 0-3 substituents selected from halo, amino, cyano, lower alkyl, carboalkoxy, CONH₂, and S-lower alkyl;
- R° is lower alkyl, aryl, aryl lower alkyl, heteroaryl, aryl substituted by 1-3 substituents selected from alkyl, alkenyl, alkoxy, methylene dioxy, and halo, or a 5- to 6-membered heterocyclic

ring containing O or N as a heteroatom, wherein heteroaryl is a heteroaromatic ring of 5 to 6 members including 1 to 2 heteroatoms selected from O, N, and S and 0-2 substituents selected from lower alkyl, dialkylamino, lower alkoxy, and halo;

- R¹⁰ and R¹¹ are each independently lower alkyl, aryl lower alkyl, or aryl substituted by 1-3 substituents selected from lower alkyl, halo, alkoxy and haloalkyl;
- R¹² is lower alkyl, aryl, heteroaryl, aryl lower alkyl, heteroaryl lower alkyl, a 5- or 6-membered heterocyclic ring containing 1-2 heteroatoms selected from O, S, and N, a 5- or 6-membered heterocyclic ring containing 1-2 heteroatoms selected from O, S, and N-lower alkyl, or aryl substituted with 1-3 substituents selected from lower alkyl, alkoxy, halo, sulfamoyl, lower alkyl sulfamoyl, cyano, and phenyl;
- R¹³ is lower alkyl, aryl, or aryl substituted with 1-3 substituents selected from lower alkyl, alkoxy, halo, CN, and haloalkyl;
- R¹⁴ is H; alkyl; alkyl substituted by 1-3 alkoxy, S-lower alkyl, sulfamoyl, halo, alkylsulphonamido, or arylsulphonamido; alkenyl; alkynyl; aryl; substituted aryl; heteroaryl; substituted heteroaryl; heterocycloalkyl; -CH₂NR¹⁶C(O)R¹⁶;-C(O)NR¹⁶R¹⁶; -CH₂OC(O)R¹⁶; or -CH₂SC(O)R¹⁶;
- R^{15} is H, alkyl, -C(O)X, -C(S)X, or $-C(NCN)NR^3R^3$;
- R^{10} is lower alkyl, substituted lower alkyl, aryl, or substituted aryl;
- R^{17} is H; alkyl; alkyl substituted by 1-3 alkoxy, S-lower alkyl, sulfamoyl, halo, alkylsulphonamido, or arylsulphonamido; alkenyl; alkynyl; aryl; substituted aryl; heteroaryl; substituted heteroaryl; heterocycloalkyl; $-CH_2NR^{16}C(O)R^{16}$; $-C(O)NR^{16}R^{16}$; $-CH_2OC(O)R^{16}$; or $-CH_2SC(O)R^{16}$;
- X is alkyl, aryl, arylalkyl, O-loweralkyl, or -NR³R³;
- Z is $-(CH_2)_{1-6}$ -, optionally substituted with 1-3 lower alkyl; $-CHR^2$ -; $-Phe-CH_2$ -, where Phe is optionally mono-substituted with halogen, lower alkyl, or alkoxy; or heteroarylene- (CH_2) -;
- m is 2 or 3; and
- n is 4-9;

- 5. A compound of claim 4, wherein R¹² is sulfamoylphenyl.
- 6. A compound of claim 4, wherein R¹² is p-sulfamoylphenyl.

7. A compound of claim 4, wherein:

 R^{1} is OH, OCH₂C(O)NH(CH₂)₁₋₆R¹⁷, or OCH₂-4-Phe-C(O)NH(CH₂)₁₋₆R¹⁷;

R⁴ and R⁵ are each lower alkyl; or

 $R^4 \text{ and } R^5 \text{ taken together are -}(CH_2)_5\text{-}, -(CH_2)_2\text{-}O\text{-}(CH_2)_2\text{-}, -(CH_2)_2\text{-}NR^8\text{-}(CH_2)_2\text{-}, \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-}, -(CH_2)_2\text{-}S\text{-}(CH_2)_2\text{-}, \text{ or -}CH_2CH(NCH_3)(CH_2)_2CHCH_2\text{-}; \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-}, -(CH_2)_2\text{-}S\text{-}(CH_2)_2\text{-}, \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-}, -(CH_2)_2\text{-}S\text{-}(CH_2)_2\text{-}, \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-}, \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-},$

 R^6/R^7 are H/OH or -S(CH₂)₂S-;

- R⁸ is H, COOR⁹, CONHR¹⁰, CSNHR¹¹, COR¹², SO₂R¹³, lower alkyl, aryl lower alkyl, heteroaryl wherein the heteroatoms include 1 to 3 N atoms and the substituents are halo or amino, heteroaryl lower alkyl wherein heteroaryl is 6-membered and the heteroatoms are N, or aryl lower alkyl substituted with 1 substituent selected from lower alkyl, alkoxy, and halo;
- R⁹ is lower alkyl, aryl lower alkyl, aryl, tetrahydrofuranyl, tetrahydropyranyl, or aryl substituted by 1 to 2 substituents selected from lower alkyl, alkenyl, alkoxy, methylene dioxy, and halo;
- R¹⁰ and R¹¹ are each independently aryl, aryl lower alkyl, or aryl substituted by 1 substituent selected from lower alkyl, halo, alkoxy, trifluoromethyl, and pentafluoroethyl;
- R¹² is lower alkyl, aryl, aryl lower alkyl, heteroaryl lower alkyl wherein the heteroatoms are N, a 5- or 6-membered heterocyclic ring containing 1-2 heteroatoms selected from S and N lower alkyl, or aryl substituted with 1 substituent selected from lower alkyl, alkoxy, halo, sulfamoyl, cyano, or phenyl; and
- R¹³ is lower alkyl, aryl, or aryl substituted with 1 substituent selected from lower alkyl, alkoxy, and halo;

or a pharmaceutically acceptable salt thereof.

38. A compound according to claim 4, wherein:

 R^1 is $-OCH_2CO_2H$;

 R^2 is -H;

 R^4 and R^5 taken together are $-(CH_2)_2-S(O)_{0.2}-(CH_2)_2-$; and one of R^6 and R^7 is -H and the other is -H or $-N(CH_2)_{1.6}R^{14}R^{15}$.

39. A compound of claim 38 wherein:

 R^{14} is -H; and

R¹⁵ is alkyl.

40. A compound of the formula:

$$R^{1} \xrightarrow{5} R^{6} R^{7}$$

$$R^{2} \times R^{5} II$$

wherein:

 R^{1} is OCH, CO, H;

 R^2 is H;

 R^4 and R^5 taken together are -(CH₂)₂-S-(O)₂-(CH₂)₂-; and

one of R^6 and R^7 is -H and the other is -H or -N(CH_2)_{1.6} $R^{14}R^{15}$,

wherein:

 R^{14} is $\;H;$ alkyl; alkyl substituted by 1-3 alkoxy, S-lower alkyl, sulfamoyl, halo, alkylsulphonamido, or arylsulphonamido; alkenyl; alkynyl; aryl; substituted aryl; heteroaryl; substituted heteroaryl; heterocycloalkyl; -CH_2NR^{16}C(O)R^{16}; -C(O)NR^{16}R^{16}; -CH_2OC(O)R^{16}; or -CH_2SC(O)R^{16};

wherein:

R16 is lower alkyl, substituted lower alkyl, aryl, or substituted aryl; and

 R^{15} is H, alkyl, -C(O)X, -C(S)X, or $-C(NCN)NR^3R^3$;

wherein:

X is alkyl, aryl, arylalkyl, O-loweralkyl, or -NR³R³; and

R³ is H, alkyl, aryl, or arylalkyl.

41. A compound of claim 40, wherein:

R¹⁴ is -H; and

R¹⁵ is alkyl.

42. A compound of the formula:

$$R^{1} \xrightarrow{5} R^{6} R^{7}$$

$$R^{2} \times R^{5} = II$$

wherein:

R¹ is OH, O(CH₂)₁₋₂OH, OCH₂CO₂H, CO₂H, O-Z-C(O)NH(CH₂)₁₋₆R¹⁷ or OCH₂-4-Phe-C(O)NH(CH₂)₁₋₆R¹⁷;

R² is H or lower alkyl;

R³ is H, alkyl, aryl, or arylalkyl;

R⁴ and R⁵ are each independently H, lower alkyl, or substituted lower alkyl where the substituents are 1-3 alkoxy, aryl, substituted aryl, carboalkoxy, carboxamido or di-loweralkylamido; or

 $R^4 \text{ and } R^5 \text{ taken together are -}(CH_2)_{n^-}, -(CH_2)_2 - O - (CH_2)_2 -, -CH_2 - O - (CH_2)_3 -, -(CH_2)_2 - NR^8 - CH_2)_2 -, -(CH_2)_2 - NR^8 - (CH_2)_m -, -(CH_2)_2 - CH_2 - (CH_2)_2 -, -(CH_2)_2 - S(O)_{0-2} - (CH_2)_2 -, \text{ or } -CH_2 - CH_2 -$

one of R^6 and R^7 is H and the other is H, OH, or $N(CH_2)_{1.6}R^{14}R^{15}$; or

 R^6 and R^7 taken together are R^2 , R^2 , R^2 , R^2 , R^2 , with the proviso that when R^1 is -OH and R^2 is -H, R^6 and R^7 are not -H and -OH or when taken together are not R^2 and when R^1 is -OCH₂CO₂H and R^4 and R^5 are both -H or methyl, R^6 and R^7 taken together is not R^3 ;

- R⁸ is H, COOR⁹, CONHR¹⁰, CSNHR¹¹, COR¹², SO₂R¹³, lower alkyl, aryl lower alkyl, heteroaryl, or heteroaryl lower alkyl, wherein aryl is optionally substituted with 1-3 substituents selected from lower alkyl, lower alkoxy, halo, CN, NH₂, COOH, CONH₂, carboalkoxy, and mono- or di-lower alkylamino and wherein heteroaryl is a mono- or bicyclic heteroaromatic ring system of 5 to 10 members including 1 to 3 heteroatoms selected from O, N, and S and 0-3 substituents selected from halo, amino, cyano, lower alkyl, carboalkoxy, CONH₃, and S-lower alkyl;
- R° is lower alkyl, aryl, aryl lower alkyl, heteroaryl, aryl substituted by 1-3 substituents selected from alkyl, alkenyl, alkoxy, methylene dioxy, and halo, or a 5- to 6-membered heterocyclic ring containing O or N as a heteroatom, wherein heteroaryl is a heteroaromatic ring of 5 to

- 6 members including 1 to 2 heteroatoms selected from O, N, and S and 0-2 substituents selected from lower alkyl, dialkylamino, lower alkoxy, and halo;
- R¹⁰ and R¹¹ are each independently lower alkyl, aryl, aryl lower alkyl, or aryl substituted by 1-3 substituents selected from lower alkyl, halo, alkoxy and haloalkyl;
- R¹² is lower alkyl, aryl, heteroaryl, aryl lower alkyl, heteroaryl lower alkyl, a 5- or 6-membered heterocyclic ring containing 1-2 heteroatoms selected from O, S, and N, a 5- or 6-membered heterocyclic ring containing 1-2 heteroatoms selected from O, S, and N-lower alkyl, or aryl substituted with 1-3 substituents selected from lower alkyl, alkoxy, halo, sulfamoyl, lower alkyl sulfamoyl, cyano, and phenyl;
- R¹³ is lower alkyl, aryl, or aryl substituted with 1-3 substituents selected from lower alkyl, alkoxy, halo, CN, and haloalkyl;
- R¹⁴ is H; alkyl; alkyl substituted by 1-3 alkoxy, S-lower alkyl, sulfamoyl, halo, alkylsulphonamido, or arylsulphonamido; alkenyl; alkynyl; aryl; substituted aryl; heteroaryl; substituted heteroaryl; heterocycloalkyl; -CH₂NR¹⁶C(O)R¹⁶;-C(O)NR¹⁶R¹⁶; -CH₂OC(O)R¹⁶; or -CH₂SC(O)R¹⁶;
- R^{15} is H, alkyl, -C(O)X, -C(S)X, or $-C(NCN)NR^3R^3$;
- R¹⁶ is lower alkyl, substituted lower alkyl, aryl, or substituted aryl;
- R¹⁷ is H; alkyl; alkyl substituted by 1-3 alkoxy, S-lower alkyl, sulfamoyl, halo, alkylsulphonamido, or arylsulphonamido; alkenyl; alkynyl; aryl; substituted aryl; heteroaryl; substituted heteroaryl; heterocycloalkyl; -CH₂NR¹⁶C(O)R¹⁶; -C(O)NR¹⁶R¹⁶; -CH₂OC(O)R¹⁶; or -CH₂SC(O)R¹⁶;
- X is alkyl, aryl, arylalkyl, O-loweralkyl, or -NR³R³;
- Z is $-(CH_2)_{1.6}$ -, optionally substituted with 1-3 lower alkyl; $-CHR^2$ -; $-Phe-CH_2$ -, where Phe is optionally mono-substituted with halogen, lower alkyl, or alkoxy; or heteroarylene-(CH_2)-;
- m is 2 or 3; and
- n is 4-9;

- 43. A compound of claim 42, wherein R¹² is sulfamoylphenyl.
- 44. A compound of claim 42, wherein R^{12} is *p*-sulfamoylphenyl.

45. A compound of claim 42, wherein:

 R^{\perp} is OH, OCH₂C(O)NH(CH₂)_{1.6}R¹⁷, or OCH₂-4-Phe-C(O)NH(CH₂)_{1.6}R¹⁷;

R⁴ and R⁵ are each lower alkyl; or

 R^{6}/R^{7} are H/OH; =O, or -S(CH₂)₂S-;

- R⁸ is H, COOR⁹, CONHR¹⁰, CSNHR¹¹, COR¹², SO₂R¹³, lower alkyl, aryl lower alkyl, heteroaryl wherein the heteroatoms include 1 to 3 N atoms and the substituents are halo or amino, heteroaryl lower alkyl wherein heteroaryl is 6-membered and the heteroatoms are N, or aryl lower alkyl substituted with 1 substituent selected from lower alkyl, alkoxy, and halo;
- R⁹ is lower alkyl, aryl lower alkyl, aryl, tetrahydrofuranyl, tetrahydropyranyl, or aryl substituted by 1 to 2 substituents selected from lower alkyl, alkenyl, alkoxy, methylene dioxy, and halo;
- R¹⁰ and R¹¹ are each independently aryl, aryl lower alkyl, or aryl substituted by 1 substituent selected from lower alkyl, halo, alkoxy, trifluoromethyl, and pentafluoroethyl;
- R¹² is lower alkyl, aryl, aryl lower alkyl, heteroaryl lower alkyl wherein the heteroatoms are N, a 5- or 6-membered heterocyclic ring containing 1-2 heteroatoms selected from S and N lower alkyl, or aryl substituted with 1 substituent selected from lower alkyl, alkoxy, halo, sulfamoyl, cyano, or phenyl; and
- R¹³ is lower alkyl, aryl, or aryl substituted with 1 substituent selected from lower alkyl, alkoxy, and halo;

46. A compound of the formula:

$$R^{1}$$
 R^{2}
 R^{2}
 R^{4}
 R^{5}
 R^{5}

wherein:

R¹ is $O(CH_2)_{1.2}OH$, CO_2H , $O-Z-C(O)NH(CH_2)_{1.6}R^{17}$ or OCH_3-4 -Phe- $C(O)NH(CH_3)_{1.6}R^{17}$;

R² is H or lower alkyl;

R³ is H, alkyl, aryl, or arylalkyl;

R⁴ and R⁵ are each independently H, lower alkyl, or substituted lower alkyl where the substituents are 1-3 alkoxy, aryl, substituted aryl, carboalkoxy, carboxamido or di-loweralkylamido; or

 $R^4 \text{ and } R^5 \text{ taken together are -}(CH_2)_n\text{-}, -(CH_2)_2\text{-}O\text{-}(CH_2)_2\text{-}, -CH_2\text{-}O\text{-}(CH_2)_3\text{-}, -(CH_2)_2\text{-}NR^8\text{-}CH_2)_2\text{-}, \\ -CH_2\text{-}NR^8\text{-}(CH_2)_m\text{-}, -(CH_2)_2\text{CH}(NHR^8)(CH_2)_2\text{-}, -(CH_2)_2\text{-}S(O)_{0\cdot 2}\text{-}(CH_2)_2\text{-}, \text{ or } \\ -CH_2\text{CH}(N\text{-loweralkyl})(CH_2)_2\text{CHCH}_2\text{-}; \\$

one of R^6 and R^7 is H and the other is H, OH, or $N(CH_2)_{1.6}R^{14}R^{15}$; or

$$R^6$$
 and R^7 taken together are $\overset{\circ}{\mathbb{I}}$, $\overset{\circ}{\checkmark}$, $\overset{\circ}{\checkmark}$, $\overset{\circ}{\checkmark}$, $\overset{\circ}{\checkmark}$, $\overset{\circ}{\circ}$, $\overset{\circ}{\circ}$

- R⁸ is H, COOR⁹, CONHR¹⁰, CSNHR¹¹, COR¹², SO₂R¹³, lower alkyl, aryl lower alkyl, heteroaryl, or heteroaryl lower alkyl, wherein aryl is optionally substituted with 1-3 substituents selected from lower alkyl, lower alkoxy, halo, CN, NH₂, COOH, CONH₂, carboalkoxy, and mono- or di-lower alkylamino and wherein heteroaryl is a mono- or bicyclic heteroaromatic ring system of 5 to 10 members including 1 to 3 heteroatoms selected from O, N, and S and 0-3 substituents selected from halo, amino, cyano, lower alkyl, carboalkoxy, CONH₃, and S-lower alkyl;
- R° is lower alkyl, aryl, aryl lower alkyl, heteroaryl, aryl substituted by 1-3 substituents selected from alkyl, alkenyl, alkoxy, methylene dioxy, and halo, or a 5- to 6-membered heterocyclic ring containing O or N as a heteroatom, wherein heteroaryl is a heteroaromatic ring of 5 to 6 members including 1 to 2 heteroatoms selected from O, N, and S and 0-2 substituents selected from lower alkyl, dialkylamino, lower alkoxy, and halo;

- R¹⁰ and R¹¹ are each independently lower alkyl, aryl, aryl lower alkyl, or aryl substituted by 1-3 substituents selected from lower alkyl, halo, alkoxy and haloalkyl;
- R¹² is lower alkyl, aryl, heteroaryl, aryl lower alkyl, heteroaryl lower alkyl, a 5- or 6-membered heterocyclic ring containing 1-2 heteroatoms selected from O, S, and N, a 5- or 6-membered heterocyclic ring containing 1-2 heteroatoms selected from O, S, and N-lower alkyl, or aryl substituted with 1-3 substituents selected from lower alkyl, alkoxy, halo, sulfamoyl, lower alkyl sulfamoyl, cyano, and phenyl;
- R¹³ is lower alkyl, aryl, or aryl substituted with 1-3 substituents selected from lower alkyl, alkoxy, halo, CN, and haloalkyl;
- R¹⁴ is H; alkyl; alkyl substituted by 1-3 alkoxy, S-lower alkyl, sulfamoyl, halo, alkylsulphonamido, or arylsulphonamido; alkenyl; alkynyl; aryl; substituted aryl; heteroaryl; substituted heteroaryl; heterocycloalkyl; -CH₂NR¹⁶C(O)R¹⁶;-C(O)NR¹⁶R¹⁶; -CH₂OC(O)R¹⁶; or -CH₂SC(O)R¹⁶;
- R^{15} is H, alkyl, -C(O)X, -C(S)X, or $-C(NCN)NR^3R^3$;
- R¹⁶ is lower alkyl, substituted lower alkyl, aryl, or substituted aryl;
- R¹⁷ is H; alkyl; alkyl substituted by 1-3 alkoxy, S-lower alkyl, sulfamoyl, halo, alkylsulphonamido, or arylsulphonamido; alkenyl; alkynyl; aryl; substituted aryl; heteroaryl; substituted heteroaryl; heterocycloalkyl; -CH₂NR¹⁶C(O)R¹⁶; -C(O)NR¹⁶R¹⁶; -CH₂OC(O)R¹⁶; or -CH₂SC(O)R¹⁶;
- X is alkyl, aryl, arylalkyl, O-loweralkyl, or -NR³R³;
- Z is $-(CH_2)_{1.6}$ -, optionally substituted with 1-3 lower alkyl; $-CHR^2$ -; $-Phe-CH_2$ -, where Phe is optionally mono-substituted with halogen, lower alkyl, or alkoxy; or heteroarylene- (CH_2) -;
- m is 2 or 3; and
- n is 4-9;

- 47. A compound of claim 46, wherein R¹² is sulfamoylphenyl.
- 48. A compound of claim 46, wherein R^{12} is *p*-sulfamoylphenyl.

49. A compound of claim 46, wherein:

 R^{+} is $OCH_{2}C(O)NH(CH_{2})_{1-6}R^{17}$, or OCH_{2} -4-Phe-C(O)NH(CH₂)₁₋₆ R^{17} ;

R4 and R5 are each lower alkyl; or

 $R^4 \text{ and } R^5 \text{ taken together are -}(CH_2)_5\text{-}, -(CH_2)_2\text{-}O\text{-}(CH_2)_2\text{-}, -(CH_2)_2\text{-}NR^8\text{-}(CH_2)_2\text{-}, \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-}, -(CH_2)_2\text{-}S\text{-}(CH_2)_2\text{-}, \text{ or } -CH_2CH(NCH_3)(CH_2)_2CHCH_2\text{-}; \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-}, -(CH_2)_2\text{-}S\text{-}(CH_2)_2\text{-}, \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-}, -(CH_2)_2\text{-}S\text{-}(CH_2)_2\text{-}, \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-}, \\ -(CH_2)_2\text{-}CH(NHR^8)(CH_2)_2\text{-}$

 R^{6}/R^{7} are H/OH; =0, or -S(CH₂)₂S-;

- R⁸ is H, COOR⁹, CONHR¹⁰, CSNHR¹¹, COR¹², SO₂R¹³, lower alkyl, aryl lower alkyl, heteroaryl wherein the heteroatoms include 1 to 3 N atoms and the substituents are halo or amino, heteroaryl lower alkyl wherein heteroaryl is 6-membered and the heteroatoms are N, or aryl lower alkyl substituted with 1 substituent selected from lower alkyl, alkoxy, and halo;
- R⁹ is lower alkyl, aryl lower alkyl, aryl, tetrahydrofuranyl, tetrahydropyranyl, or aryl substituted by 1 to 2 substituents selected from lower alkyl, alkenyl, alkoxy, methylene dioxy, and halo;
- R¹⁰ and R¹¹ are each independently aryl, aryl lower alkyl, or aryl substituted by 1 substituent selected from lower alkyl, halo, alkoxy, trifluoromethyl, and pentafluoroethyl;
- R¹² is lower alkyl, aryl, aryl lower alkyl, heteroaryl lower alkyl wherein the heteroatoms are N, a 5- or 6-membered heterocyclic ring containing 1-2 heteroatoms selected from S and N lower alkyl, or aryl substituted with 1 substituent selected from lower alkyl, alkoxy, halo, sulfamoyl, cyano, or phenyl; and
- R¹³ is lower alkyl, aryl, or aryl substituted with 1 substituent selected from lower alkyl, alkoxy, and halo;